

REMARKS

As an initial matter, Applicant wishes to thank the Examiner for the notice that claim 5 has been allowed. With regard to the remaining claims, Applicant respectfully traverses and requests reconsideration.

Claims 1-4 and 6-24 stand rejected under 35 U.S.C. Section 103(a) as being unpatentable over Keene in view of Dutton.

Keene discloses managing audio data using a separate codec audio controller to process audio information and a separate graphic display controller that are connected through a dedicated codec serial interface 207. A portion of the video display memory associated with the graphics display controller is allocated to one or more audio data buffers to hold digitized audio data that was processed by the separate codec audio controller. (FIG. 2). Specifically, the cited portions of Keene disclose a dedicated codec interface that is dedicated to an external audio controller. (Fig. 2). A dedicated four-line serial bus connects the dedicated codec interface with the external audio processing circuit (codec audio controller). (Fig. 2). A memory controller and arbitrator allows a portion of video display memory, which is unused for graphic data, to be used as a dynamically configurable data buffer for audio data. Col 5, lines 41-45.

Dutton discloses a computer system that controls access to a bus. To gain access to the bus, a component sends a request to the bus arbiter, which determines whether the component will receive access priority over other components. Abstract.

In contrast, the limitations of claim 1 require, inter alia, a bus arbitrator that is operatively coupled to a video graphics as well as an audio processing circuit. The bus arbitrator interprets incoming data and appropriately provides the incoming data to either the video graphics processing circuit, or the audio processing circuit as received from the same local bus and

interprets the incoming data from the local bus and provides the incoming data to either the audio processing circuit or the video graphics processing circuit for processing.

With regard to claim 1, Applicant respectfully submits that the cited portion of Keene does not teach a local bus that is operatively coupled to transceive data to and from the graphics processing circuit and the audio processing circuit. Instead, Keene teaches a separate codec audio controller that is connected to a dedicated codec interface through a four-line serial bus that is not coupled to the video graphics controller. Figs. 203-206. The four-line serial bus connecting the codec audio controller to the codec interface is not the same bus as the local bus connected to the video graphics controller. Fig. 2. The external codec audio controller is separate from the video graphic controller, and not coupled to the same local bus. In contrast, claim 1 requires a single local bus that is operatively coupled to both the graphic processing circuit and the audio processing circuit. The cited portion of Keene does not disclose the claimed subject matter at least because the external and dedicated codec audio controller and the video graphics controller are not coupled to a same local bus. For at least this reason, Applicant respectfully submits that claim 1, and all claims dependent thereon, are suitable for allowance.

In addition, the arbitrator of Keene does not interpret incoming data from a local bus that is coupled to both the external codec and the internal video graphics processor and does not appropriately provide the incoming data from the same bus to either the video graphics processing circuit, or the external audio processing circuit (external audio codec) as received from the same local bus nor does it interpret the incoming data from the local bus and provide the incoming data to either the audio processing circuit or the video graphics processing circuit for processing.

With regard to claim 6, the claimed subject matter requires arbitrating access to a local bus when an address identifies both the audio processing circuit and the graphics processing circuit. The Office Action alleges that Keene teaches the claimed subject matter because “it is implied that there’s a chance a location in the display memory identifies both audio processing circuit and graphics processing circuit.” In response, Applicant respectfully submits that a hypothetical chance does not amount to a teaching.

Moreover, the cited portion of Keene does not disclose a chance that at least one address identifies both the audio processing circuit and the graphics processing circuit. Applicant respectfully submits that an address within the memory disclosed by Keene is unrelated to an address received for bus arbitration, as required by the claimed subject matter. Instead, the cited portion of Keene discloses an audio data buffer that is dynamically allocated within the graphics memory (Fig. 2). The memory cited in Keene stores digitized audio data (col. 4, lines 44-46) and graphic data (col. 5, lines 42-45). Conversely, the subject matter of claim 6 requires, in part, receiving at least one address, where an address may identify both the audio processing circuit and the graphics processing circuit. The memory disclosed in Keene does not store addresses identifying circuits, but instead stores data for output. As such, none of the addresses in memory identify an audio processing circuit or a graphics processing circuit. Therefore, there is not even an implied chance that an address in the memory disclosed by Keene could identify both an audio processing circuit and a graphics processing circuit. For at least this reason, Applicant respectfully submits that claim 6, and all claims dependent thereon, are suitable for allowance.

With regard to claim 14, the claim stands rejected as being similar in scope to claim 6. Applicant respectfully disagrees that claim 14 is similar in scope to claim 6. Moreover, the cited reference to Keene does not disclose a processing unit that audio processes the associated data

command when an address identifies audio processing, and graphics processes the associated command when the address identifies graphics processing. Instead, Keene discloses two separate processing units. Keene discloses a video graphics controller and a separate codec audio controller that is connected through a dedicated codec interface. Conversely, the claimed subject matter requires a single processing unit that processes both the audio and the video processes, depending on the associated command. The cited reference fails to disclose a single processing unit that processes both video and audio processes, but instead discloses two entirely separate circuits connected through a dedicated codec interface. For at least this reason, Applicant respectfully submits that claim 14, and all claims dependent thereon, are suitable for allowance.

With regard to claim 17, Applicant respectfully submits that the cited reference does not disclose the claimed subject matter. Claim 17 stands rejected under the same rationale as claim 6, but Applicant respectfully submits that claim 17 is not similar in scope to claim 6. The cited portion of Keene discloses an audio data buffer that is dynamically allocated within the graphics memory (Fig. 2). According to the cited portion, a memory controller is connected to arbitrate access to the memory between the codec audio controller and the video graphics controller. However, the cited portion fails to disclose memory operatively coupled to a processing unit within an arbitrator. The subject matter of claim 17 requires, in part, memory which is operatively coupled to a processing unit, where the memory causes the processing unit to receive an address and determine whether the address identifies the audio processing circuit or the video graphics processing circuit. In contrast, the memory cited in Keene stores digitized audio data (col. 4, lines 44-46) and graphic data (col. 5, lines 42-45). As such, the memory disclosed in Keene fails to cause a processing unit to receive an address, identify the corresponding circuit, and arbitrate access to the local bus. Indeed, as described above with regard to claim 1, Keene

does not even disclose a local bus to which the audio processing circuit and the graphics processing circuit are both connected, and thus Keene inherently cannot teach arbitration of a local bus, as required by in part claim 17. For at least this reason, Applicant respectfully submits that claim 17, and all claims dependent thereon, are suitable for allowance.

Applicant respectfully submits that the claims 1-4 and 6-24 are in condition for allowance and respectfully requests that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

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